

Session No. 43

Course Title: Social Dimensions of Disaster, 2nd edition

Session 43: Multidisciplinary Perspectives in Emergency Management

1 hr.

Objectives:

- 43.1 List at least six academic disciplines, other than sociology, that offer insights into human responses to disaster
- 43.2 Identify at least 10 illustrative scholars, other than sociologists, who have published research findings focused on human responses to disaster
- 43.3 Discuss at least five research questions that reflect theories of traditional social science disciplines, other than sociology
- 43.4 Describe the inherently multidisciplinary nature of emergency management
- 43.5 Discuss the impacts of internationalism on emergency management.

Scope:

This is the second of three integrative sessions which focuses on the inherent multidisciplinary nature of the practice of emergency management. Illustrative scholars and research questions from numerous academic disciplines are contrasted as are the impacts of internationalism.

Readings:

Student Reading:

Oliver-Smith, Anthony. 1999. "What is a Disaster?": Anthropological Perspectives on a Persistent Question." Pp. 18-34 in *The Angry Earth: Disaster in Anthropological Perspective*, edited by Anthony Oliver-Smith and Susanna M. Hoffman. New York: Routledge.

And/or

Mitchell, James K. 1999. "Findings and Conclusions." Pp. 473-502 in *Crucibles of Hazard: Mega-Cities and Disasters in Transition*, edited by James K. Mitchell. Tokyo-New York-Paris: United Nations University.

Professor Readings:

Hoffman, Susanna M. and Anthony Oliver-Smith. 1999. "Anthropology and the Angry Earth: An Overview." Pp. 1-16 in *The Angry Earth: Disaster in Anthropological Perspective*, edited by Anthony Oliver-Smith and Susanna M. Hoffman. New York: Routledge.

Mitchell, James K. (ed.). 1999. *Crucibles of Hazard: Mega-Cities and Disasters in Transition*. Tokyo-New York-Paris: United Nations University. (Chapters 1 and 2 entitled "Introduction" and "Natural Disasters in the Context of Mega-Cities", pp. 1-14 and 15-55).

McEntire, David. 2001a. "The Internationalization of Emergency Management: Challenges and Opportunities Facing an Expanding Profession." *IAEM Bulletin* 18 (10):3-4.

Background References:

Cross, John A. 1998. "A Half Century of Hazards Dissertation Research in Geography." *International Journal of Mass Emergencies and Disasters* 16:199-212.

Stever, Max. 2003. *The Scientific Study of Society*. Boston, Massachusetts: Kluwer Academic Publishers.

Oliver-Smith, Anthony. 1996. "Anthropological Research on Hazards and Disasters." *Annual Review of Anthropology* 25:303-328.

Parker, Dennis J. 2000. "Introduction to Floods and Flood Management." Pp. 3-39 in *Floods* (Vol. 1), edited by Dennis J. Parker. London: Routledge.

General Requirements:

Use Overheads (43-1 through 43-5 appended).

Use Student Handouts (43-1 and 43-3).

See individual requirements for each objective.

Objective 43.1 List at least six academic disciplines, other than sociology, that offer insights into human responses to disaster.

Requirements:

Use Overhead 43-1.

Remarks:

I. Introduction.

A. **Ask students:** “Some of you have questions about the Final Examination in this course which was distributed last session. Let’s take a few minutes to deal with these. What are they?”

B. **Ask students:** “OK, now let’s turn to the topic of the day. By the end of this session you will have a much better idea of why the emergency management profession reflects multiple academic disciplines. Based on your reading in this course, what traditional social science disciplines have you encountered that have contributed to your understanding of the social factors that constrain emergency management?”

C. **Record** student responses on the chalkboard.

II. Traditional social science disciplines.

A. **Display** Overhead 43-1; “Disaster Studies Within Traditional Social Science Disciplines.”

B. **Review** the list of disciplines and integrate with student generated responses listed on chalkboard.

C. **Explain:** certain disciplines like urban planning, law, etc. will be discussed later in this session. These are not commonly defined as “traditional” social science disciplines.

Supplemental Considerations:

This brief section is a “**warm-up**” **exercise** to facilitate discussion of the basic issue, that is, the **inherent interdisciplinary nature** of emergency management. Some professors may wish to **expand** the discussion by asking students to provide **example** research **articles** or **books** that reflect each of the **disciplines** listed. It may be desirable to indicate that an **exercise** will focus on the **assigned reading** later in the session wherein the **contributions** of anthropology and geography will be examined in more **depth**.

Some professors may wish to **incorporate** the conclusions of **Cross** (1998) regarding the large number of (130) doctoral dissertations that have focused on the study of hazards from a geographic perspective. Reflecting on the unique role of Gilbert F. White, Cross documented that he “. . . and several of his students served as advisors for nearly a fifth of these dissertations . . .” (p. 1999). Cross (1998) also documented that “. . . most hazards dissertations, represent efforts by students whose advisors have neither written

nor advised a previous hazards dissertation.” (p. 199). Thus, next to sociology, geography has been the discipline with the longest and most extensive role in guiding academic research. Students could be reminded of earlier discussions of this and its consequences, i.e., Session No. 3; “History of Sociological Research on Disasters” (Objective 3.3).

Objective 43.2 Identify at least 10 illustrative scholars, other than sociologists, who have published research findings focused on human responses to disaster.

Requirements:

Student Handout 43-1.

Overhead 43-1.

Remarks:

- I. Introduction.
 - A. **Display** Overhead 43-1; “Disaster Studies Within Traditional Social Science Disciplines.”
 - B. **Ask students:** “Based on your reading in this course, what scholars come to mind for each of these disciplines? What are some example research studies or books?”
 - C. **Record** student responses on chalkboard.
- II. Illustrative scholars.
 - A. **Distribute** Student Handout 43-1.
 - B. **Review** the list of illustrative scholars and integrate with student examples.
 - C. **Select** a few examples and **identify** the type of research questions posed.

Supplemental Considerations:

This brief section will move students toward an **enhanced understanding** of the **varied disciplines** and scholars whose works have **contributed** to our overall **understanding** the social dimensions of disaster. Some professors may wish to **expand** this section and/or the scope of the Student Handout by providing **additional examples** for each **discipline**. The key **message** is that scholars within all of the **disciplines** have made important **contributions** to the study of disaster.

Objective 43.3 Discuss at least five research questions that reflect theories of traditional social science disciplines, other than sociology.

Requirements:

Overheads 43-2 through 43-4.

Student Handout 43-2.

Remarks:

I. Introduction.

A. **Exercise.**

1. **Remind** students of exercise procedures.
2. **Divide** class into four groups and assign roles.
 - a. Chair.
 - b. Reporter.
 - c. Timer.

3. **Announce** time limit: 5 minutes.

B. **Display** Overhead 43-2; “Workshop Tasks.”

1. Group 1 – According to Oliver-Smith (1999) what unique perspectives on disaster does the discipline of anthropology offer?
2. Group 2 – According to Oliver-Smith (1999), what key insights does a political ecology perspective on disaster provide?
3. Group 3 – According to Mitchell (1999), why are mega-city hazards of unique importance?
4. Group 4 – According to Mitchell (1999), how and why are mega-city disasters changing?

C. **Start** discussion.

D. **Stop** discussion.

II. Illustrative contributions from anthropology.

A. Group 1 report: 2 minutes.

B. Group 2 report: 2 minutes.

C. **Supplement** as required, with points like these (adapted from Oliver-Smith 1999).

1. Early anthropologists focused on responses of traditional peoples to specific events (p. 24).
2. What do disasters reveal about a society through analysis of four issues? (p. 25).
 - a. Internal social and economic structure and dynamics.
 - b. Relation of internal dynamics to external social and environmental relations.
 - c. Nature of overall societal adaptation.
 - d. How knowledge gained can be used to reduce disaster vulnerability and damage.
3. “Political ecology situates an ecologically grounded social scientific perspective within a political economy framework by focusing on the relationships between people, the environment, and the sociopolitical structures that characterize the society of which the people are members . . .” (p. 29).
4. “A political ecology approach recognizes that the social institutional arrangements through which human beings access and alter the physical environment in their quest for sustenance and shelter are key elements in the evolution of disasters.” (p. 30).
5. “. . . the life history of a disaster begins prior to the appearance of a specific event-focused agent. Indeed, in certain circumstances disasters become part of the profile of any human system at its first organizational moment in a relatively fixed location or area.” (p. 30).

III. Illustrative contributions from geography.

A. **Explain:** Following the publication of Gilbert F. White’s (1945) doctoral dissertation, large numbers of researchers expanded upon his basic research question, i.e., why do people continue to reside in flood prone areas?

- B. **Explain:** As research continued the scope of the research agenda expanded, i.e., all hazards, not limited to floods, as did the range of theoretical perspectives used to explain the behavior studied. Mitchell (1999) is illustrative of one type of new research.
- C. Group 3 report – 2 minutes.
- D. Group 4 report – 2 minutes.
- E. **Supplement** as required, with points like these (adapted from Mitchell 1999).
1. **Why are mega-city disasters important?** (pp. 475-476).
 - a. Potential for large losses of life and property.
 - b. Material and economic impacts, e.g., “. . . more than 40 percent of Tokyo was completely destroyed by earthquakes and fires on two occasions in the past 75 years.” (p. 476).
 - c. Technological hazards, e.g., Bhopal, India chemical leak.
 - d. Biological hazards, e.g., hepatitis outbreak in Lima, Peru.
 2. **How and why are mega-cities changing?**
 - a. Changes in interactivity, e.g., hybrid disasters like the outworn canal walls in Chicago’s central business district (p. 484).
 - b. Changes of risk, e.g., “In Lima, the bed of the Rimac River is slowly rising as sediment accumulates in the channel; seepage from the elevated river is weakening foundations and walls of nearby buildings, which are predominately built of dried mud.” (p. 486).
 - c. Changes of vulnerability, e.g., Los Angeles wherein poor in inter-city areas are earthquake prone while the rich are at more risk from wildfires and subsequent mudslides (p. 487).
 - d. Changes in efficacy of hazard management, e.g., “Most of the case-study authors report *increasing difficulty in developing and sustaining public support for hazard-management initiatives.*” (p. 487).

IV. Multidisciplinary matrix: traditional social science disciplines.

- A. **Distribute** Student Handout 43-2; “Multidisciplinary Matrix: Traditional Social Science Disciplines.”
- B. **Display** Overheads 43-3 and 43-4; “Multidisciplinary Matrix: Traditional Social Science Disciplines.” (Part A and Part B).
- C. **Review** Overheads by highlighting the **differences** in the **research questions** posed.
- D. **Explain:** While there is considerable overlap among the disciplines, there are fundamental differences in the typical point of focus, unit studied, and theoretical perspectives used.
- E. **Explain:** **The most fundamental difference is in the types of research questions that are asked.**

Supplemental Considerations:

The key message of this section is that persons trained in different social science disciplines tend to ask very **different research questions** about aspects of disaster. While there is considerable **overlap**, e.g., some sociologists examine stress effects on individuals just as do psychologists, there are **differences** among the disciplines. It should be emphasized that this **does not mean** that one discipline is “**correct**” and the others are “wrong”. Rather, each provides a **unique framework** for study. Some professors may use the analogy of five **blind men** feeling different parts of an elephant and describing their **image** of the creature based on touching the trunk, ear, leg, etc.

Objective 43.4 Describe the inherently multidisciplinary nature of emergency management.

Requirements:

Student Handout 43-3.

Remarks:

- I. Introduction.
 - A. **Ask students:** “When people are being educated to practice medicine, what range of disciplines must they study?”
 - B. **Record** student responses on the chalkboard.
 - C. **Supplement** as necessary, so that **at least** the following are listed.

1. Biology.
2. Chemistry.
3. Biochemistry.
4. Anatomy.
5. Physiology.
6. Pharmacology.
7. Psychology.
8. Others.

D. **Explain:** emergency management is an evolving profession, like medicine, the **practice** of which requires **continuing education** and exposure to **multiple** disciplines.

II. Additional disciplines.

A. **Distribute** Student Handout 43-3; “Illustrations of Additional Disciplines Relevant to Emergency Management.”

B. **Review** a few examples; Handout is a future student resource.

D. **Explain:** Since the 9-11 attacks, the threat of terrorism has caused the profession to increase a focus on homeland security issues. Thus, the **profession** of emergency management will continue to evolve and change as it has in the past. New disciplinary **emphases** include:

1. Criminal justice.
2. Public health.
3. International studies.
4. Infrastructure protection.
5. Information security.
6. Intelligence processing.
7. Others.

Supplemental Considerations:

Depending on the **context** of the course, professors may prepare more **extensive listings** of **homeland security topics** and/or disciplines. Other professors may incorporate other **natural science** illustrations related to **biological, chemical** or **nuclear** threat agents. Some professors may integrate a multidisciplinary text into this section. For example, Stever (2003) has compared research in five disciplines, i.e., economics, political science, anthropology, social psychology, and sociology. Thus, illustrations of the contributions of each could be provided for topics like crime, housing, migration, family and religion. Finally, some professors will emphasize disciplines related to **city management** such as personnel, accounting, auditing, or specific service agencies like fire or police administration. The **key message** of the section can be **communicated** in **numerous ways**, i.e., **the profession of emergency management is inherently multidisciplinary and requires life long learning skills and commitment by its practitioners.**

Objective 43.5 Discuss the impacts of internationalism on emergency management.

Requirements:

Overhead 43-5.

Remarks:

- I. Introduction.
 - A. **Ask students:** “With a few exceptions, most of our discussion has focused on academic issues within the United States. Clearly emergency managers must approach their practice from a multidisciplinary perspective. But what about internationalism? What opportunities and issues do you see in the future for emergency managers within an international context?”
 - B. **Record** student responses on the chalkboard.
- II. McEntire 2001.
 - A. **Explain:** The membership of the “National Coordinating Council on Emergency Management” decided to rename the organization to the “International Association of Emergency Managers”. This decision reflected a new vision, one reflective of the growing trend of increased internationalization among emergency managers.
 - B. **Explain:** McEntire (2001) has assessed the challenges and opportunities brought on the profession because of increased **internationalization**.

C. **Display** Overhead 43-5; “Internationalism: Future Opportunities.”

D. **Review** topics, illustrate as necessary, and integrate with student responses (adapted from McEntire 2001, pp. 3-4).

1. Emergency manager education.

- a. Knowledge of national differences in political, social, economic and cultural dimensions.
- b. Sensitivity to national differences in political, social, economic and cultural dimensions.
- c. Language skills.

2. Applicability of emergency management models.

- a. No single management model will work in all nations.
- b. Assumptions and research conclusions about disaster behavior may not be uniform among all nations.

3. Dissemination of information.

- a. EM training.
- b. Research conclusions.

4. Facilitation contact.

- a. Conferences and training.
- b. Collaborative research.

5. Dependency avoidance.

- a. Past relief programs have created forms of dependency.
- b. Extent of and corrective actions required.

6. Worker protection.

- a. Policies.
- b. Procedures.

7. **Appropriate technologies.**

- a. Housing.
- b. Information technology.

8. **Capacity building.**

- a. Local training.
- b. Expanded resource base.

9. **Corporate responsibility.**

- a. EM advocate.
- b. Mitigation.

10. **Citizen participation.**

- a. Preparedness.
- b. Mitigation.

Supplemental Considerations:

The **key message** of this section is that the **profession** of emergency management is being **internationalized**. In part this reflects **changes in communication technologies**, e.g., mass media, Internet use, etc. It also reflects **responses to large-scale disasters** and the growing scope and number of **international disaster agencies**; these range from the **International Strategy for Disaster Reduction** and **World Meteorological Organization** within the United Nations, non-governmental organizations such as the **International Federation of Red Cross/Red Crescent Societies**, **Oxfam** and religious based charities, e.g., **Adventist Development and Relief Agency**, **Catholic Relief Services**, etc. While brief, this section will **enhance** student **understanding** of the **rapid changes** occurring within the emergency management profession because of these global changes.

Course Developer References:

- I. Barkun, Michael. 1977. "Disaster in History." *Mass Emergencies* 2:219-231.
- II. Beatley, Timothy. 1989. "Towards a Moral Philosophy of Natural Disaster Mitigation." *International Journal of Mass Emergencies and Disasters* 7:5-32.

- III. Burby, Ray J. 2000. "Land-Use Planning For Flood Hazard Reduction." Pp. 6-18 in *Floods* (Vol. 2) edited by Dennis J. Parker. New York: Routledge.
- IV. Burton, Ian, Robert W. Kates and Gilbert F. White. 1993. *The Environment as Hazard*. 2nd ed. New York: Guilford Publishers, Inc.
- V. Carlier, Ingrid V.E., Berthold P.R. Gersons, Regina D. Lamberts and Annephine J. Van Uchelen. 1998. "Disaster-Related Post-Traumatic Stress in Police Officers: A Field Study of the Impact of Debriefing." *Stress Medicine* 14:143-148.
- VI. Cross, John A. 1998. "A Half Century of Hazards Dissertation Research in Geography." *International Journal of Mass Emergencies and Disasters* 16:199-212.
- VII. Dacy, Douglas C. and Howard Kunreuther. 1969. *The Economics of Natural Disasters*. New York: The Free Press.
- VIII. Dow, Kirstin and Susan L. Cutter. 1998. "Crying Wolf: Repeat Responses to Hurricane Evacuation Orders." *Coastal Management* 26:237-252.
- IX. Green, Bonnie L. 1998. "Psychological Responses to Disasters: Conceptualization and Identification of High-Risk Survivors." *Psychiatry and Clinical Neurosciences* 52:S67-S73.
- X. Hoffman, Susanna M. and Anthony Oliver-Smith. 1999. "Anthropology and the Angry Earth: An Overview." Pp. 1-16 in *The Angry Earth: Disaster in Anthropological Perspective*, edited by Anthony Oliver-Smith and Susanna M. Hoffman. New York: Routledge.
- XI. Hoffman, Susanna M. 1999. "The Worst of Times, the Best of Times: Toward a Model of Cultural Response to Disaster." Pp. 134-155 in *The Angry Earth: Disaster in Anthropologic Perspective*, edited by Anthony Oliver-Smith and Susanna M. Hoffman. New York: Routledge.
- XII. Kunreuther, Howard and Richard J. Roth, Sr., eds. 1998. *Paying the Price: The Status and Role of Insurance Against Natural Disasters in the United States*. Washington, D.C.: Joseph Henry.
- XIII. Lanza, L.G. and P. LaBarbera. 2000. "Quantitative Precipitation Forecasting and Hydrometeorological Warnings in the Mediterranean Region." Pp. 240-249 in *Floods* (Vol. 2), edited by Dennis J. Parker. London: Routledge.
- XIV. May, Peter J. 1997. "State Regulatory Roles: Choices in the Regulation of Building Safety." *State and Local Government Review* 29:70-80.
- XV. McComb, David G. 1986. *Galveston: A History*. Austin, Texas: University of Texas Press.

- XVI. McEntire, David. 2001a. "The Internationalization of Emergency Management: Challenges and Opportunities Facing an Expanding Profession." *IAEM Bulletin* 18 (10):3-4.
- XVII. McKay, Jennifer. 1995. "Legal Responsibilities of Local Government for Flood Plans and Advice." *The Australian Journal of Emergency Management* 10 (No. 3):39-41.
- XVIII. Mitchell, James K. (ed.). 1999. *Crucibles of Hazard: Mega-Cities and Disasters in Transition*. Tokyo-New York-Paris: United Nations University.
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- XX. Oliver-Smith, Anthony. 1996. "Anthropological Research on Hazards and Disasters." *Annual Review of Anthropology* 25:303-328.
- XXI. Oliver-Smith, Anthony. 1999. "'What is a Disaster?': Anthropological Perspectives on a Persistent Question." Pp. 18-34 in *The Angry Earth: Disaster in Anthropological Perspective*, edited by Anthony Oliver-Smith and Susanna M. Hoffman. New York: Routledge.
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